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Appellants: Heindel et al.
Serial No.: 08/834,777
Filed: April 3, 1997
For: PROCESS OF PROVIDING
MECHANICAL FASTENERS ON
DISPOSABLE ABSORBENT
ARTICLES

Docket No.: 11,589.3
Group: 3735
Examiner: D. Cho
Date: April 23, 1999

REF X A T E M C
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appeal
Brief

Brief on Appeal to the Board of Patent Appeals and Interferences

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Pursuant to 37 C.F.R. 1.192 Appellants respectfully submit this Brief in support of their Appeal of the **Final Rejection** of claims 35, 43, 44, 48 and 50-57 which was mailed on October 27, 1998. On February 25, 1999, Appellants, pursuant to 37 C.F.R. 1.191, mailed a timely Notice of Appeal which was received in the Patent Office on March 3, 1999. In accordance with 37 C.F.R. 1.192(a) this Appeal Brief is filed in triplicate.

Real Party in Interest

Kimberly-Clark Worldwide, Inc., the assignee of the present patent application, is the real party in interest.

Related Appeals and Interferences

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A Notice of Appeal was filed on January 14, 1999 in U.S. Patent Application No. 08/828,808 which was a continuation of U.S. Patent Application No. 08/791,691 which is the parent application to the instant divisional application.

Status of the Claims

Claims 35, 43, 44, 48 and 50-57 are pending in the application.

Claims 35, 43, 44, 48 and 50-57 stand rejected and form the subject matter of this appeal.

Status of Amendments Filed Subsequent to Final Rejection

An Amendment After Final was submitted on January 6, 1999. In an Advisory Action mailed February 22, 1999, the Examiner indicated that the Amendment would be entered upon the filing of an appeal.

Summary of the Invention

The claimed invention concerns a package of disposable absorbent articles which comprises a plurality of disposable absorbent articles contained therein. As representatively illustrated in Figs. 1-7, the disposable absorbent article, such as diaper 20, generally includes an outer cover 22, a bodyside liner 24 and an absorbent core 26 disposed between the outer cover 22 and the bodyside liner 24. The absorbent article also includes at least one mechanical fastener. In the illustrated embodiments, the diaper 20 includes a pair of mechanical fasteners 34 and 36. The mechanical fasteners 34 and 36 are generally attached along the side edges of the diaper 20 in one of the waist regions and, in use, are configured to encircle the hips of the wearer and releasably engage the opposite waist region to secure the article about the waist of the wearer. Suitable mechanical fasteners include hook-and-loop type mechanical fasteners which comprise a hook material 40 and optionally a loop material 42. As illustrated in Figs. 3, 5 and 7, the hook material 40 includes a base sheet 46 and stemlike projections 48 which extend from the base sheet 46.

The absorbent article may further include at least one elastic ear tab to which the mechanical fasteners 34 and 36 are attached. For example, as illustrated in Figs. 1-8, the the mechanical fasteners 34 and 36 of the diaper 20 may be attached to a pair of elastic ear tabs 38 which are, in turn, attached to the periphery of the diaper 20.

In the different aspects of the invention, the stemlike projections 48 of the mechanical fasteners 34 and 36 are releasably engaged with the disposable absorbent article to protect the hook material 40 before the disposable absorbent article is packaged and/or handled by a user. For example, in one embodiment, as representatively illustrated in Figs. 2 and 3, the fasteners 34 and 36 are located on the elastic ear tabs 38 and the stemlike projections 48 of the fasteners are releasably engaged with the elastic ear tabs 38 to protect the hook material before the disposable absorbent article is packaged and/or handled by a user. In an alternative embodiment as representatively illustrated in Fig. 8, the fasteners 34 and 36 are located in one waist region and the stemlike projections 48 of the fasteners are releasably engaged with the opposite waist region of the disposable absorbent article to protect the hook material and provide a pant-like structure before the disposable absorbent article is packaged and/or handled by a user.

The releasable engagement of the hook material 40 of the mechanical fasteners 34 and 36 with the disposable diaper 20 must be sufficient to ensure adequate protection of the mechanical fasteners 34 and 36. Specifically, the stemlike projections 48 of the hook material 40 must be sufficiently engaged in the disposable diaper 20 to avoid separation in both a shear mode (force generally parallel to the plane of engagement) and a peel mode (force generally perpendicular to the plane of engagement) during the manufacturing and packaging processes. For example, it is desirable that the stemlike projections 48 of the hook material 40 be releasably engaged with the disposable diaper to provide a peel strength of at least about 20 grams, desirably from about 20 to about 1500 grams and more desirably from about 30 to about 90.

Thus, in the different embodiments of the present invention, the stemlike projections of the hook material of the hook-and-loop type fasteners are controlled and protected to reduce or eliminate damage to the hook material during the manufacturing and packaging processes. The undamaged hook material can then provide improved fastening and refastening of the disposable absorbent articles about the waist of the wearer. Thus, the different embodiments of the present invention render the use of mechanical fasteners, such as hook-and-loop type fasteners, on disposable absorbent articles more feasible.

The Issues Presented

1. Whether claims 35, 43, 48 and 50-57 are unpatentable under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent Number 5,176,670 issued January 5, 1993, to Roessler et al. (hereinafter "Roessler")?
2. Whether claim 44 is obvious to one of ordinary skill in the art at the time the invention was made and thus unpatentable under 35 U.S.C. § 103 over Roessler?

Grouping of the Claims

For the rejections described in Issue 1:

Claims 35 and 43 stand or fall as a group.

Claims 48, 52 and 53 stand or fall as a group.

Claims 50, 54 and 55 stand or fall as a group.

Claims 51, 56 and 57 stand or fall as a group.

For the rejections described in Issue 2:

Claim 44 is believed to be separately patentable.

Argument

Claims 35, 43, 48 and 50-57 are patentable under 35 U.S.C. § 102(b) over Roessler.

Claims 35, 43, 48 and 50-57 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by and thus unpatentable over U.S. Patent Number 5,176,670 issued January 5, 1993, to Roessler et al. For the reasons set forth below, Appellants respectfully submit that the Examiner's rejections should be reversed.

Roessler describes a disposable absorbent article which includes a refastenable mechanical fastener system for closing and opening the waistband. The fastener comprises a hook and loop type fastener. The hook material is preferably mounted to the ears of the article at the rear waistband. The loop material is mounted on the front waistband and is configured to releasably engage the hook material to secure the absorbent article about the waist of a wearer. At column 9, lines 21-27, Roessler teaches that the hook material on the fastener tab 30 in the embodiment illustrated in Fig. 6 may be folded inwardly to lightly grip the topsheet material 21 when the article is packaged prior to use.

The rejected claims are directed to a package of disposable absorbent articles which include an outer cover, a bodyside liner, an absorbent core disposed between the outer cover and the bodyside liner, and at least one hook-and-loop type mechanical fastener. The mechanical fastener includes a hook material which includes a base sheet and stemlike projections extending from the base sheet. The stemlike projections are releasably engaged with the disposable absorbent article to protect the hook material before the article is packaged. Independent claim 35 further recites that the base of the hook material is attached to an elastic ear tab and the stemlike projections of the hook material are releasably engaged with the elastic ear tab of the absorbent article prior to packaging. Claims 43 and 44 depend from claim 35 and further recite specific peel strength values between the stemlike projections and the elastic ear tab. Independent claim 48 further recites that the stemlike projections of the hook material are releasably engaged with the absorbent article to protect the stemlike projections and provide a pant-like structure before the absorbent article is packaged. Claims 50-57 ultimately depend from claim 48 and further recite different arrangements by which the stemlike projections are

releasably engaged with the absorbent article to provide the pant-like structure before the absorbent article is packaged.

The Examiner maintains that Roessler describes an absorbent article which includes a hook-and-loop type fastener wherein the hook material is releasably engaged with the loop material on the outer cover of the article. However, Appellants assert that Roessler neither describes nor suggests a package of disposable absorbent articles which include hook-and-loop type fasteners wherein the stemlike projections of the hook fasteners are protected prior to packaging as recited in the rejected claims.

With respect to independent claim 35 and claim 43 which depends therefrom, Appellants assert that Roessler fails to describe or suggest a package of disposable absorbent articles which include a hook-and-loop type mechanical fasteners wherein the base of the hook material is attached to an elastic ear tab on the absorbent article and the stemlike projections of the hook material are releasably engaged with the elastic ear tab to protect the stemlike projections before the article is packaged. Instead, Roessler, at column 9, lines 21-27 and Fig. 6, describes that the hook material on the fastener tab 30 may be folded inwardly to lightly grip the topsheet material 21 when the diaper is packaged prior to use. Moreover, for the sake of argument, even if the topsheet material 21 in Roessler could be construed to be an ear tab as recited in the claims, Roessler neither describes nor suggests that such topsheet material is elastic. In support of his position, the Examiner refers to the embodiment illustrated in Fig. 11 wherein the base of the hook material is attached to side panels 36 and 37 which may be elastic. However, contrary to the Examiner's assertion, Roessler neither describes nor suggests that the stemlike projections of the hook material in this embodiment may be engaged with such side panels 36 and 37. As such, Appellants assert that Roessler cannot be said to anticipate claims 35 and 43.

With respect to independent claim 48 and claims 50-57 which ultimately depend therefrom, Appellants assert that Roessler fails to describe or suggest a package of disposable absorbent articles which include a hook-and-loop type mechanical fastener wherein the stemlike projections of the hook material are releasably engaged with the absorbent article to protect the stemlike projections and provide a pant-like structure before the article is packaged. Instead, Roessler describes that the hook material may be folded inwardly to lightly grip the nonwoven material of the topsheet or inside liner of the diaper prior to use. Moreover, contrary to the claimed invention, Roessler describes that the hook material of the diaper may be releasably engaged with the loop material on the front waistband after removing the diaper from the package and positioning it about the wearer. Releasably engaging the hook material prior to use as taught by Roessler, i.e. inwardly and to the topsheet, would not provide a

package of absorbent articles having a pant-like structure as recited in the rejected claims. Instead, the diaper would still be in an unfastened, non pant-like structure as illustrated in Figs. 1, 2 and 6.

Moreover, since Roessler fails to describe or suggest a package of disposable absorbent articles having such a pant-like structure, it follows that Roessler fails to describe or suggest the different manners in which the hook material may be releasably engaged with the absorbent article to protect the hook material and provide the claimed pant-like structure as set forth in claims 50-57. For example, with respect to claims 50, 54 and 55, Appellants assert that Roessler fails to describe or suggest a package of disposable absorbent articles which include a hook-and-loop type mechanical fastener wherein the stemlike projections of the hook material are releasably engaged with the loop material of the absorbent article to protect the stemlike projections and provide a pant-like structure before the article packaged. Instead, Roessler describes that the hook material of the diaper is releasably engaged with the loop material on the front waistband to open and close the waistband to secure the absorbent article about the waist of the wearer after removing the diaper from the package and positioning it about the wearer.

Further, with respect to claims 51, 56 and 57, Appellants assert that Roessler fails to describe or suggest a package of disposable absorbent articles which include a hook-and-loop type mechanical fastener wherein the stemlike projections of the hook material are releasably engaged with the outer cover of the absorbent article to protect the stemlike projections and provide a pant-like structure before the article packaged. Instead, Roessler describes that the hook material of the diaper is releasably engaged with the loop material on the front waistband to open and close the waistband to secure the absorbent article about the waist of the wearer after removing the diaper from the package and positioning it about the wearer. Therefore, Appellants assert that Roessler does not anticipate claims 35, 43, 48 and 50-57. Accordingly, Appellant respectfully requests that the rejections of claims 35, 43, 48 and 50-57 under § 102(b) be reversed.

Claim 44 is patentable under 35 U.S.C. § 103 over Roessler.

Claim 44 stands rejected under 35 U.S.C. § 103 as allegedly being obvious to one of ordinary skill in the art at the time the invention was made and thus unpatentable over Roessler. For the reasons set forth below, Appellants respectfully submit that the Examiner's rejection should be reversed.

Claim 44 depends from claim 35 and further recites that the stemlike projections of the hook material are releasably engaged with the elastic ear tab to provide certain peel strength values. As discussed above in connection with the rejection of claim 35, Roessler fails to describe or suggest a package of disposable absorbent articles which include a hook-and-loop type mechanical fasteners wherein the base of the hook material is attached to an elastic ear tab on the absorbent article and the stemlike projections of the hook material are releasably engaged with the elastic ear tab to protect the stemlike projections before the article is packaged. Instead, Roessler, at column 9, lines 21-27 and Fig. 6, describes that the hook material on the fastener tab 30 may be folded inwardly to lightly grip the topsheet material 21 when the diaper is packaged prior to use. Moreover, Appellants assert that Roessler does not suggest and the Examiner has failed to provide any support why one skilled in the art would be motivated to make the changes to Roessler necessary to arrive at the claimed invention. As such, Appellants assert that the Examiner has failed to make out a prima facie case of obviousness. Therefore, claim 44 is patentable under 35 U.S.C. § 103 over Roessler. Accordingly, Appellants respectfully request that the rejection of claim 44 under 35 U.S.C. § 103 over Roessler be reversed.

In view of the above Arguments, it is respectfully submitted that the rejections of claims 35, 43, 44, 48 and 50-57 under 35 U.S.C. §§ 102(b) and 103 are in error. Accordingly, Appellants respectfully request that all of the Examiner's rejections be reversed.

Please charge the \$310.00 fee, pursuant to 37 C.F.R. 1.17(f), for filing this Appeal Brief to Kimberly-Clark Worldwide, Inc. deposit account number 11-0875. Any additional prosecutorial fees which are due may also be charged to deposit account number 11-0875.

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Respectfully submitted,

HEINDEL ET AL.

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CERTIFICATE OF MAILING

I, JoAnn Breister, hereby certify that on April 23, 1999 this document is being deposited with the United States Postal Service as first-class mail, postage prepaid, in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231.

By: JoAnn Breister
JoAnn Breister

Appendix – The Claims On Appeal

The claims on appeal are:

35. A package of disposable absorbent articles comprising a plurality of said disposable absorbent articles wherein each of said disposable absorbent articles includes an outer cover, a bodyside liner, an absorbent core disposed between said outer cover and said bodyside liner, a pair of elastic ear tabs, and at least one mechanical fastener, wherein said at least one mechanical fastener is a hook-and-loop type mechanical fastener which comprises a hook material which includes a base sheet attached to one of said elastic ear tabs and stemlike projections extending from said base sheet, said stemlike projections of said mechanical fastener being releasably engaged with said one elastic ear tab to protect said hook material of said mechanical fastener before said disposable absorbent article is packaged.

43. The package of disposable absorbent articles according to claim 35 wherein said stemlike projections are releasably engaged with said one elastic ear tab to provide a peel strength of at least about 20 grams.

44. The package of disposable absorbent articles according to claim 35 wherein said stemlike projections are releasably engaged with said one elastic ear tab to provide a peel strength of from about 30 to about 90 grams.

48. A package of disposable absorbent articles comprising a plurality of said disposable absorbent articles wherein each of said disposable absorbent articles includes an outer cover, a bodyside liner, an absorbent core disposed between said outer cover and said bodyside liner, and at least one hook-and-loop type mechanical fastener which comprises a hook material which includes a base sheet and stemlike projections extending from said base sheet, said stemlike projections being releasably engaged with said disposable absorbent article to protect said hook material and provide a pant-like structure before said disposable absorbent article is packaged.

50. The package of disposable absorbent articles according to claim 48 wherein said mechanical fastener further comprises a loop material which is attached to said outer cover of said disposable

absorbent article and wherein said stemlike projections are releasably engaged with said loop material to protect said stemlike projections and provide said pant-like structure.

51. The package of disposable absorbent articles according to claim 48 wherein said stemlike projections are releasably engaged with said outer cover of said disposable absorbent article to protect said stemlike projections and provide said pant-like structure.

52. The package of disposable absorbent articles according to claim 48 wherein said base sheet of said hook material is attached to a rear periphery of said absorbent article and said stemlike projections of said hook material are releasably engaged with an outer surface of said absorbent article near a front edge of said absorbent article to protect said hook material and provide said pant-like structure.

53. The package of disposable absorbent articles according to claim 48 wherein said base sheet of said hook material is attached to a front periphery of said absorbent article and said stemlike projections of said hook material are releasably engaged with an outer surface of said absorbent article near a rear edge of said absorbent article to protect said hook material and provide said pant-like structure.

54. The package of disposable absorbent articles according to claim 50 wherein said base sheet of said hook material is attached to a rear periphery of said absorbent article and said loop material is attached to said outer cover near a front edge of said absorbent article.

55. The package of disposable absorbent articles according to claim 50 wherein said base sheet of said hook material is attached to a front periphery of said absorbent article and said loop material is attached to said outer cover near a rear edge of said absorbent article.

56. The package of disposable absorbent articles according to claim 51 wherein said base sheet of said hook material is attached to a rear periphery of said absorbent article and said stemlike projections are releasably engaged with said outer cover near a front edge of said absorbent article.

57. The package of disposable absorbent articles according to claim 51 wherein said base sheet of said hook material is attached to a front periphery of said absorbent article and said stemlike projections are releasably engaged with said outer cover near a rear edge of said absorbent article.